

and tahr were only 16 m away from each other within 10 minutes. At 08 32 the snow leopard stood up and I thought that the snow leopard was getting ready to make a rush towards its prey. I am quite positive that some of the tahr must have seen the snow leopard at that time but none seemed either frightened or gave a warning call. Once again the snow leopard started stalking when the tahr were in a very vulnerable position due to the short distance and snow on the ground. But, again the snow leopard left stalking got up and moved away from the scene. The Snow leopard went back along the same path on the snow covered slope it had used when it had appeared a few minutes earlier. It disappeared after about 300 m on the snow, high up in the mountain ridge.

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February 22, 1986.

I monitored the daily activity of the tahr herd till dark on that day, but the snow leopard did not return to hunt again. The tahr had followed the same daily routine as if nothing had happened to them. I have never seen the snow leopard the only predator for Himalayan tahr and blue sheep in the Langu valley, behave in such a manner before. I have witnessed several instances of snow leopard's hunting in the same area, and they had killed the ungulates in some cases and in other cases had unsuccessfully chased the animals after stalking. Perhaps the snow leopard was not hungry at that time? Or, probably it had seen me though I was about 700 m away and observing from behind a rock. What could be the possible reason?

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3. HOW DOES THE YOUNG *TAPHOZOUS KACHENSIS* SETTLE UPON ITS MOTHER

(With a photograph)

In a paper published in this journal, and concerning the breeding habits of the bat *Taphozous kachensis*, Sapkal and Deshmukh (1985) said: "The young ones are not carried by the mothers on their backs as was mentioned by Brosset (1962) but are carried at the breast". The citation is not correct; I wrote: "The young keeps itself on the back of the mother" which has, in my mind, a different meaning.

Since my 1962 paper, I saw several species of bats keeping their young on their back. Kulzer had published an excellent photograph

showing of this in the african molossid *Mops condylura* (see in Brosset 1966). My observations on *T. kachensis* are old (1959-1961), and I consulted my field notes in order to verify the basis of my assertion. It was recorded that lactating females were caught with half and full grown young ones on their back at Ellora, Ajanta, Aurangabad and Badami. More, I found several pictures which prove that my observations were correct. These pictures show clearly young astride the back of their mother. Some of these pictures have been published, including one, taken at Ellora, in

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the paper to which Sapkal and Deshmukh referred (Brosset 1962). Another one, taken at Badami accompanies the present paper.

in an axillary position. Thus, the young are carried laterally under the wing; the mother is quickly destabilised by the fast growing



Photo 1. Lactating ♀ of *T. kachensis* with an almost fully grown young on her back.

It is a known fact that in bats, the position of the young upon the mother is variable, according to the anatomy of the species, and the type of the specific roost. The free hanging species, as the Pteropids and the Rhinolophids, keep and carry their young under the breast and belly, the Rhinolophids in an inverted position which gives both a good balance at rest and during the flight. The species which keep the belly in close contact with the walls of the roost, as the Emballonurids and Molossids do, all have a flat body and the teats

young; and is left behind during the hunting flight, and at rest must adopt a more convenient position.

Naturally, during suckling, and probably when the mother moves, the newly born young is fastened to the teat, a fact which would explain the assertions of Sapkal and Deshmukh. But later, at rest, the fast growing young of some species, as *T. kachensis*, keeps itself on the back of the mother.

In other respects, the histological study of Sapkal and Deshmukh on the breeding habits

of *T. kachensis* confirms my field notes taken in various places of North, Central and South India (Brosset 1961 and 1962): monoestrous

species, mating in early April and giving birth to one young during the first half of July.

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REFERENCES

BROSSET, A. (1961): La reproduction des Chiropteres dans l'Ouest de l'Inde. *Mammalia*, n 2: 175-213.

————— (1962): The bats of western and central India. Part 1. *J. Bombay nat. Hist. Soc.* 61: 1-57.

————— (1966): La Biologie des Chiroptere-

res, collect. "Les grands problemes de la Biologie", Ed. Masson, 230 p., 77 Fig. et Photos.

SAPKAL, V. M. & DESHMUKH, A. H. (1985): Breeding habits and associated phenomena in some Indian Bats, Part X, *Taphozous kachensis* (Dobson) — Emballonoridae. *J. Bombay nat. Hist. Soc.* 82(1): 61-67.

4. PRESENT STATUS OF THE EUROPEAN COMMENSAL BLACK RAT, *RATTUS RATTUS RATTUS* (LINN.) IN BOMBAY

During the rodent blood sample collection at Rat Destruction Establishment, B.M.C., Haffkine Institute, Bombay, it was observed that the collection included jet black silky soft furred rats, which were identified with the help of Ellerman (1961), as *Rattus rattus rattus* (Linn.) (Type species). This species is a commensal rodent form from Europe. Ellerman (1961) reported the collection of two specimens belonging to *R. r. rattus* (Linn.) from Bombay and concluded that being exotic species, the specimens might have come accidentally with sea cargo. However, our examination of the present day rodent collection from Greater Bombay, revealed the fact that this species was being trapped almost everyday from the port areas of Bombay city. The average everyday collection of this rat can roughly be calculated at 1%-2% of the total rodent collection from Greater Bombay.

Rattus rattus rattus (Linn.) thus, like its

counterpart, *Rattus norvegicus* (Berken.), has been trying to establish itself in Bombay for sometime. However, it seems, the black rat, could not fully establish itself in the city. The reason may be that the Norway rat is more ferocious and can adjust to the change in habits and habitat. The present record also shows the collection of *R. norvegicus* (Berken.) from the distant suburbs of Greater Bombay indicating that this rat is, now, extending its distribution in the suburban areas as well.

Careful observations also showed the collection of both the sexes in different age groups varying from juvenile to adult (including pregnant) of *R. r. rattus* (Linn.). Thus the European black rat is not just an accidental visitor at this stage as Ellerman (1961) concluded then, but it has gained a footing in the new home and is trying to establish itself in the city. Similar survey of this rat from other port cities of India may throw some